

APPROVED O.G. FIG. Title: Plant Branched Chain Amino Acid Biosynthetic Enzymes
 BY Inventor: Saverio Carl Falco
 DRAFTSMAN 435 SUBCLAS Appl. No.: 09/1232 E.I. DuPont de Nemours

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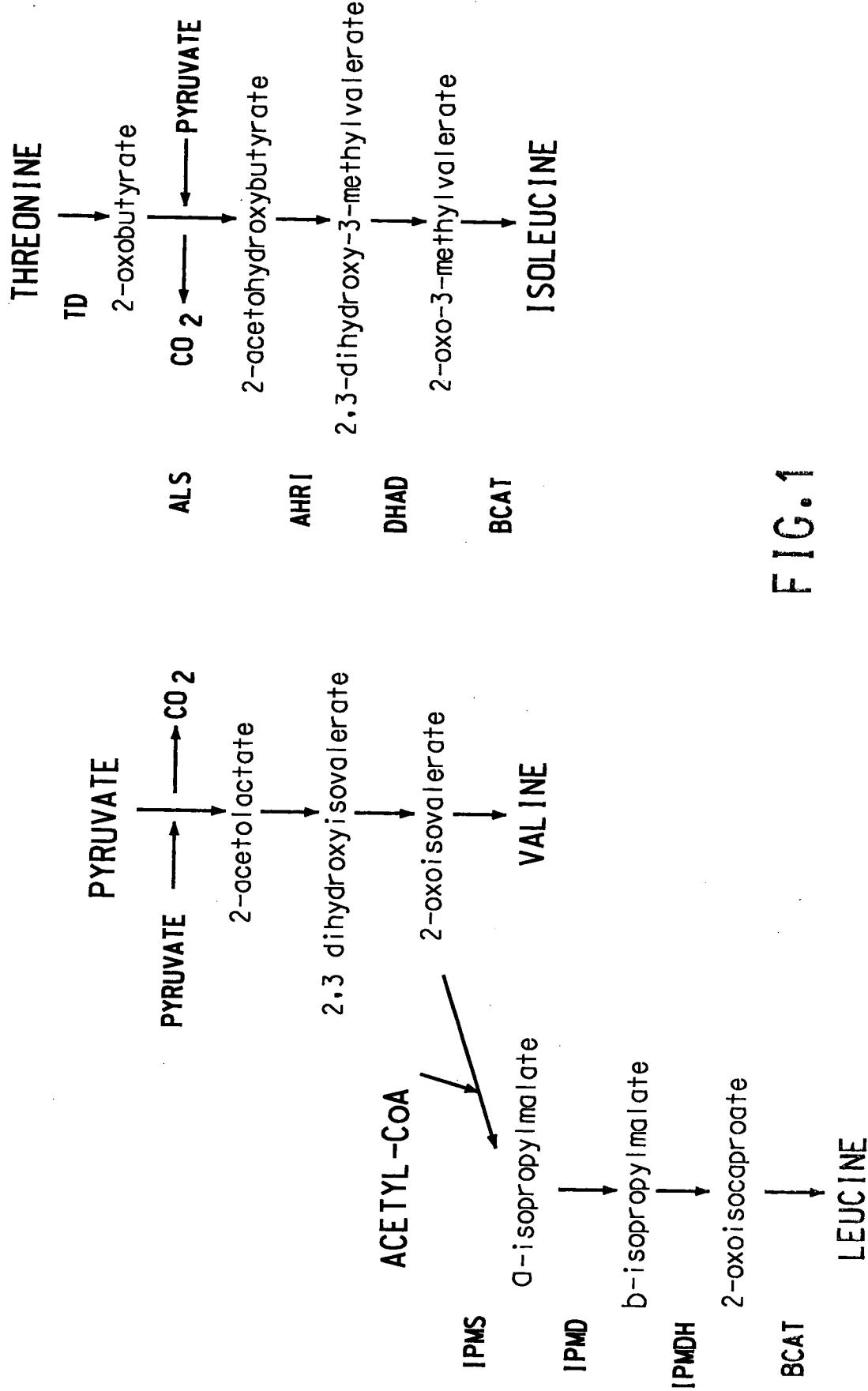


FIG. 1

APPROVED	O.G. FIG.		Tit lavl
BY	CLASS	SUBCLASS	APP E. I.
DRAFTSMAN			

BB 1120
Plant Branched Chain Amino Acid Biosynthetic Enzymes
Saverin, Carl Falco
09/11/1988
Not declassified

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SEQ ID NO: 7	NRPSIMVYGGTILPGHPTCGSSKISKNNIDIVSAFQSYGEYISKQFTEEEEREDVVEHACPG
SEQ ID NO: 2	NRPSIMIYGGTIKPGHFEQ
SEQ ID NO: 4	NRPSIMVYGGTIKPGHFE
SEQ ID NO: 6	GNTFDIVSAFQCYGEYVSSGSIIDDQRQNVIERNSCPG

FIG. 2A

APPROVED BY DRAFTSMAN	O.G. FIG. CLASS	Docket No: Title: Inventor: Appl. No.:
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BB-1126
Plant-Derived Chain Amino Acid Biosynthetic Enzymes
Saveurs de la Falco
09/18/1990
de Nemours

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SEQ	ID	NO: 7	PGSCGGMYTANTMASAAEVGLGLTIPNNSSSPAVSKEKLAECDNIGEYIKKTMELGJILPRD
SEQ	ID	NO: 2	AGACGGMYTANTMASAAETLGMSLPYSSSTPAEDPLKLEECRLAGKYLLELLKMDLKPKD
SEQ	ID	NO: 4	AGACGGMYTANTMASAAEAMGMSLPYSSSTPAEDPLKDECRLAGKYLLELLKMDLKPKD
SEQ	ID	NO: 6	AGACGGMYTANTMASAAEAMGMSLPYSSSTPAEDPLKDECRLAGKYLLELLKMDLKPKD

SEQ	ID	NO: 7	ILTKEAFENAITTYVATGGSTNAVLHLVAVAHHAGGVKLSPDDEQRISDITPLIGDEKPSG
SEQ	ID	NO: 2	IITEKSLRNAMVIVMALGGSTNAVLHLIAIARSVGLHLTLDDFQKVSDQVPLADLKPSG
SEQ	ID	NO: 4	IITRKSLRNAMVIVMALGGSTNAVLHLIAIAKSVGIDLTLDFFQKVSDEVVPFIADLKPSG
SEQ	ID	NO: 6

360 301

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SEQ ID NO: 7 KYVMADLINVGGTQSVIKLYENNMLHGNTMTVTGDTLERA
KAPSLPEGQEIIKPLSH
SEQ ID NO: 2 KYVMEDLHKIGGTPAVIHYLLEQGLLDGDCMTVTGKT
LAENAKIFPPLEQGQIIIRPLDN
SEQ ID NO: 4 KYVMEDVHKIGGTPAVIRYLLEQGFLDGDCMTVTGKT
LAENAEILVPPLSNGQEEIIIRPVEN
SEQ ID NO: 6

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FIG. 2B

APPROVED BY DRAFTSMAN	O.G. FIG. Title: CLASS	Sub Inventor: App. No.: E. I. DuPont de Nemours	ocket No: 88-112b Plant Branched Chain Amino Acid Biosynthetic Enzymes Save Carl Falco 09/10/00
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FIGURE 2C

SEQ ID NO: 7 PIKANGHLQILYGSLAPGGAVGKITGKEGTYFKGRARVFEEGAFIEALERGEIKKGERT
 SEQ ID NO: 2 PIKPTGHIQILYGNLAPEGSVAKITGKEGLFFSGPALVFEGEESMITAISENPANFKGK.
 SEQ ID NO: 4 PIKKTAHIQILYGNLAPOGSVAKITGKEGLFFSGPALVFEGEAMIAISEDPSSFKGK.
 SEQ ID NO: 6 APEGSVAKITGKEGLFFSGPALVFEGEESMITAISENPANFKGK.
 421 480

SEQ ID NO: 7 VVIRYEGPRGAPGMPEMLKPSSALMGYGLGKDVALLTGGRFSGGSHGFLIGHIVPEAAE
 SEQ ID NO: 2 VVIRGEGPKGGPMPMPEMLTPTSAIMAGAGLKECALLTGGRFSGGSHGFTVVGHICPEAQE
 SEQ ID NO: 4 VVIRGEGPKGGPMPMPEMLTPTSAIMAGAGLKEVALLTGGRFSGGSHGFTVVGHICPEAQE
 wk05c12A.pro VVIRGEGPKGGPMPMPEMLTPTSAIMAGAGLKECALLTGGRFSGGSHGFTVVGHICPEAQE
 481 540

SEQ ID NO: 7 GGPIGLVRDGDEIIIDADNNKIDLLVSDKEMAQRKQSWVAPPYRTRGTLISKYAKLVNSNA
 SEQ ID NO: 2 GGPIGLVRSGDVITIDVSKRVIDVDTQQLEERRKWTPPYKSTCGALWKYIKLVAPA
 SEQ ID NO: 4 GGPIGLQNGDVINVDIKNRIDVLVSDDEEMEARRKWTAPPYKANRGALYKYIKNVTPA
 SEQ ID NO: 6 GGPIGLVENGDTITIDVGKKVIDVDLTDQLEQRRKWSPPPDKXTNGS 541 600

SEQ ID NO: 7 SNGCVLDA
 SEQ ID NO: 2 SRGCVTDE
 SEQ ID NO: 4 SSGCVTDE
 SEQ ID NO: 6 TLE
 601 608

FIG. 2C

APPROVED BY DRAFTSMAN	O.G. FIG. CLASS	Docket No: BB-1126 Title: Plant Branched Chain Amino Acid Biosynthetic Enzymes Inventor: Sava, Carl Falco Appl. No.: 09/110,000 E.I. DuPont de Nemours
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FIGURE 3A

SEQ ID NO: 20	MTKQTIRVEL
SEQ ID NO: 09	MEYGAVLAAAPLVARPNWLLSPPPL
SEQ ID NO: 11	APSIQIQNRLYSIISSEPLK
SEQ ID NO: 13	AGPVRA
SEQ ID NO: 15
SEQ ID NO: 17
SEQ ID NO: 19
SEQ ID NO: 19
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SEQ ID NO: 20
SEQ ID NO: 09
SEQ ID NO: 11
SEQ ID NO: 13
SEQ ID NO: 15
SEQ ID NO: 17
SEQ ID NO: 19
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SEQ ID NO: 20
SEQ ID NO: 09
SEQ ID NO: 11
SEQ ID NO: 13
SEQ ID NO: 15
SEQ ID NO: 17
SEQ ID NO: 19
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FIG. 3A

121 122 123

APPROVED BY DRAFTSMAN	O.G. FIG. CLASS	Docket No: BB-1126 Title: Plant Branched Chain Amino Acid Biosynthetic Enzymes Inventor: Carl Falco Appl. No.: 09/111,000 F. I. Dupont de Nemours
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SEQ	ID NO: 20	QLVAIDKDWIPNAEGTSLYIRPFIILATEPFLGVAAASHTYKLLIILSPVGSSYYKEGIKPVK
SEQ	ID NO: 09	.....
SEQ	ID NO: 11	.....
SEQ	ID NO: 13	.....
SEQ	ID NO: 15	QTVLANRRWVPPQKGALYIRPLLIGSGPILGLAPAPEYTFLIYAAPVGTYFKEGLAPIN
SEQ	ID NO: 17	DTVLANKRWVPPACKGSLYIRPLLIGSGPVLGVAPAPEYTFLIYAAPVGTYFKEGLAPIN
SEQ	ID NO: 19	HTILANKRWVPPTCKGSLYIRPLLIGSGAMLGVAPAPEYTFLVYCPVGHYFKDGLSPIS

SEQ	ID	NO:	20
SEQ	ID	NO:	09
SEQ	ID	NO:	11
SEQ	ID	NO:	13

FIG. 3B

APPROVED	O.G. FIG.	Docket No:	BB-1126
BY	CLASS	St. ASS:	Plant Branched Chain Amino Acid Biosynthetic Enzymes
DRAFTSMAN	Appl. No.:	Inventor:	Samuel Carl Falco
		Date:	09/10/00
		E.T.:	DUPONT de Nemours

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FIGURE 3C

SEQ ID NO: 15	LEFIVKDGVVATPATVGTILPGITRKSVIELARDRGYQVEERLVSIDDLVGA.....DEV
SEQ ID NO: 17
SEQ ID NO: 19	ILMVKDNVISTPLLTGITRRIEIAQNLGIQVEERLIAIDELLDA.....DEV

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SEQ ID NO: 20	+ * + + + * + + * + * * + * + + * + + * + + * + + * + + +
SEQ ID NO: 09	FGTGTAAVISPVGELIWQDETLSINNGETGEIAKKLYDTITGIQKGAVADE. FGWTTEVA.
SEQ ID NO: 11
SEQ ID NO: 13
SEQ ID NO: 15
SEQ ID NO: 17
SEQ ID NO: 19

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SEQ ID NO: 20	ALTESK
SEQ ID NO: 09
SEQ ID NO: 11	..Q..
SEQ ID NO: 13	XIN..K
SEQ ID NO: 15	AID..
SEQ ID NO: 17R
SEQ ID NO: 19	.....

421 426

FIG. 3C

APPROVED BY DRAFTSMAN	O.G. FIG. CLASS	Docket No: Title: Inventor: Appl. No.: 61- DuPont de Nemours	BB-1126 Plant Branched Chain Amino Acid Biosynthetic Enzymes Saved by Carl Falco 09/10/00
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九月三十日

SEQ	ID	NO: 29	MKIIYLNKGKFVDEKDAKVSVF	DHDGLLY	.GDGVFFEGIRAYDGVVF	MKEHIDRLYDSAKSLC
SEQ	ID	NO: 22	..	..	..	..
SEQ	ID	NO: 24	..	..	..	..
SEQ	ID	NO: 24	..	..	..	..
SEQ	ID	NO: 26	..	..	..	..
SEQ	ID	NO: 28	..	..	..	..

SEQ	ID	NO: 29	LLGEDGIRAITVSVRRLPVDV. LNPARKSLNLYLNSVLAKIQANYAGVDEAFLLDKGFFV
SEQ	ID	NO: 22	SQCRH. . . GVRAVTTSVPMKPKPLFATMKNVNLYLPNVLSIMDAEDRGAFASVWVDEGEGNV
SEQ	ID	NO: 24	PSSPN. FRGVKVVTTSSIPKHPKFAITKSVNLYLPNVLSKVEAEAGAFVGIIWLDEGGFVA
SEQ	ID	NO: 26	SQCKE. . . GVKVITTSNIPMKPSLFAATAKVNVNLYLPNVLSVMEAEKGASSSIWVDEEGYIA
SEQ	ID	NO: 28	LQVPS. . . CCRVVTSSIPKSPQFAVMKSVNLYLPNALTKEGEENGAFTIWLDEGGFVA

FIG. 4A

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SEQ	ID	NO: 29	EGTGDN. FIVKNGCVLKTPPVYQSIILKGITRDVVIKLAKEEGIEVVEEPLTLHDLYT..
SEQ	ID	NO: 22	EGPMVNVAFTVTAAGELVLPA. FDKILAGCTAKRLLALAPRVLVESGLLKAVTTRHIAADEA
SEQ	ID	NO: 24	EGPNMNVAFVTKDKELIMPH. FDKILSGCTAKRVLTLAESLLREGKLKGIRVKVTVTEEG
SEQ	ID	NO: 26	EGPNVNVAFITQDKELVMPP. FDNLILHGCTAKRLLLEAPKLVDQGLLKGVATKKLTVEEA
SEQ	ID	NO: 28	EGSNMNVGFTVKNKELMPP. FDKILSGCTARRVLTAAEHLVVAHGKLSRVISRNVSVEEG

SEQ	ID	NO: 29	...	ADELFITGTAEIVPVFEIDGRVINNKQVGEITKYLKEKFDIR.	...	TKWGIKVY
		ID NO: 22	KRCSAEMAFVGSGLIVLPVIVEWDDQLIGDGKVGKTMMA	LSDLLWEDMKS	GP.	DRIAVPY
		ID NO: 24	KQ.	ADEMMLLGSGVLUCPVWQWDEQVIGDGKEGPITQALLNL	IVEDMKS	GPSTVRIPV
		ID NO: 26	KA.	AAEMMYVGSTILPLLPIIWDDQPIGNGRVGEITM	LLSDM	LWDDMVAGPGTQRIPV
		ID NO: 28	KM.	ADEMMLIGSGILVKPVWQWDDKIIIGSGQE	PIAQAA	...

SEQ	ID	NO:	29	DE
SEQ	ID	NO:	22	.K.
SEQ	ID	NO:	24	...
SEQ	ID	NO:	26	VE.
SEQ	ID	NO:	28	...

FIG. 4B

APPROVED	O.G. FIG.		BUCKET NO.
BY	CLASS	SUPER	Title:
DRAFTSMAN		Appl. No.:	Inventor:
			E. I. DuPon

BB-1126
Plant Branched Chain Amino Acid Biosynthetic Enzymes
Savant-Carl Falco
09/11/88
t de 10 hours

10/16

SEQ	ID	NO: 34	+	MTTKKADYIWFGEMVRWEDAKVHVMSHALHYGTSVFE
SEQ	ID	NO: 31	+	GIRCYDSSHKGPV
SEQ	ID	NO: 31	QPPPLSDDPPLPVPA	
SEQ	ID	NO: 33	QKNSVVEDSVDLPRN	
			AKVSVFQGQDAVWEGL	
			RRIYDGK	
			A	
			R	

SEQ	ID	NO: 34	VFRHREHMORLHD SAKIYREFPVSQS IDELMEAC . RDVIRKNNLITSAYIR . PLIFVGDVGM
SEQ	ID	NO: 31	VEKLD EHLDR LFD SAKAMAFSNV P T RDWIKDAIEKTLIANGMENNAHIRLTLTRGKKVTS
SEQ	ID	NO: 33	V . KLEEHLD RLF D STKAMA FSNV P S RDWIKDAIEKTLIANGMENNAHIRLTLTRGKKVTS

SEQ	ID	NO: 34	GVNPPAG. YSTDVIIAAFPWGAYLGAEALEQGIDAMVSSWNRAAPNTIPTAAKAGGNYLS
SEQ	ID	NO: 31	GMSPAFNLYGCALIVLA. EWKPPVYDNS. . HGIKLVTATTRNNSPNSIDPKIHNN. NLIN
SEQ	ID	NO: 33	GMSPTFNLYYGCVLIVLA. EWKPPVYDNS. . HGIKLVTAAATTRRNSPNSVDSKIHNN. NLIN

SEQ	ID NO: 34	SLVGSEARRHGYQEGLDNGYISEGAGENLFEVKDGVLFTPPFETSSALPGITRDALL
SEQ	ID NO: 31	NILAKIEGNNLAQAEADAIMLDKDGFBVSETNATNIFMVKKGIVLTPH.ADYCLPGITRATVM
SEQ	ID NO: 33	NILAKIEGNNLAQAEADAIMLDQDGFBVSETNATNIFMVKKGIVLTPH.ADYCLPGITRATVK

FIG. 5A

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SEQ	ID	NO: 34	KLAKELGIEVREQVLSRESLYLADEVEMSGTAAEITPVRSVDGIVQVGEGRCGPVTKRIQQ
SEQ	ID	NO: 31	DLVVKENVLHERRISLSEFHAADEVWTTGTMEITPPVMIDGREIGDGKIGPVTROIQK
SEQ	ID	NO: 33	DLVVKENVLHERRISLSEFHAADEVWTTGTMEITPPVMIDGREIGDGKIGLVTROIQS

SEQ	ID	NO: 34	AFFGLETFGETEDKKGWLQDVNQ
SEQ	ID	NO: 31	AYKILTAGQGVPIPG..VAEV.
SEQ	ID	NO: 33	AYKVLTAGLGVТИР..NAEA.

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APPROVED	J. G. Mockett No: 88-1126
BY	CLASS: 438/11.5 Title: Plant Branched Chain Amino Acid Biosynthetic Enzymes
DRAFTSMAN	INVENTOR: Savo, Carl Falco Appl. No.: 09/100,000 E.I. DU PONT de Nemours

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九月三十日

SEQ	ID	NO:	45
		MGMTIVEKILAKASGKKEVSPGDIVMANIDVAMVHDITGPLTVNTLK.	EYIGIE.KVWNPE
	
		AREPGENVWVWDVLMTHDVCGPGTIGIFKKEFGEDAKVWDR	.....
SEQ	ID	NO:	36
		MTMT..EKILARASERAALEPGENVWVWDVLMTHDVCGPGA	FDIFKKEFGEDARVWDR
SEQ	ID	NO:	38
	
SEQ	ID	NO:	40
	
SEQ	ID	NO:	42
	
SEQ	ID	NO:	44
	

SEQ	ID	NO: 45	KIVILEFDHQVPADSIKAENHILMRKEVKEQGIKYFYDIRE.....
SEQ	ID	NO: 36	KVVIIPDHYIIFTSDERANRNVDILRDFCLEQNIKYFYDIKDLSDFRANPDYKGVCHIALA
SEQ	ID	NO: 38	KLVVIPDHYIIFTSDGRAKRNVDILRDFCAEQNIKYFYDIKDLSDFRANPDYKGVCHIALA
SEQ	ID	NO: 40	.....
SEQ	ID	NO: 42	.....
SEQ	ID	NO: 44	.....

SEQ	ID	NO: 45	EKGHVAPEVVVGADSDHTCTRGAFGAFATGIGSTDMAHVFATGKLWFKVPETIYFNITG QEGHCRPGEVLLGTDSDHTCNAGAFGQFATGIGNTDAGFVMTGKALLKVPPTIRFVL DGE
SEQ	ID	NO: 36	QEAHCRPGEVLLGTDSDHTCNAGAFGQFATGIGNTDAGFVLTGKALLKVPPTIRFVL DGE
SEQ	ID	NO: 38	QEGHCRPGEVLLGTDSDHTCNAGAFGQFATGIGNTDAGFVMTGKALLKVPPTIRFVL DGE
SEQ	ID	NO: 40	QEGHCRPGEVLLGTDSDHTCNAGAFGQFATGIGNTDAGFVMTGKALLKVPPTIRFVL DGE
SEQ	ID	NO: 42
SEQ	ID	NO: 44

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FIG. 6A

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SEQ	ID	NO:	45	LQPYVTSKDVILSISIGEVGVGDATYKACQFGGETVKKMSIASRMTMTNMAIEGGKTGII
SEQ	ID	NO:	36	MPYLLAKDLILQIIGEISVSGATYKSMEVFGSTVESLTMEEERTMLCNMVEAGGKNGVV
SEQ	ID	NO:	38	MPYLLAKDLILQIIGEISVSGATYKSMEVFGSTVESLTMEEERTMLCNMVEAGGKNGVV
SEQ	ID	NO:	40	MPYLLAKDLILQIIGEISVSGATYKSMEVFGSTVESLNMEXRMTLCNMVIEAGGKNGVV
SEQ	ID	NO:	42	...
SEQ	ID	NO:	44	...

SEQ	ID	NO:45	EPDEKTIQYVKEAMKKHGTERRPFEVIKGDEDAEFAEVYIEADKIEPVFACPHNVDNVKQ
SEQ	ID	NO:36	PADETTFKYLEGR.....TSVDYQPVYSDAEEARFFSDYRFDVSKLEPVVAKPHSPDNRAL
SEQ	ID	NO:38	PADETTFKYLEGR.....TSVDYEPVYSDAQAREFFSDYRFDVSKLEPVVAKPHSPDNRAP
SEQ	ID	NO:40	.....
SEQ	ID	NO:42	.....LEGK.....
SEQ	ID	NO:44	.....TSLPYEPVYSDDQARFLAERYRFDVSKLEPVVAKPHSPDNRAL
SEQ	ID	NO:44	.....

SEQ	ID NO: 45	AREVAGKPIDQVEFIGSCTNGRLIEDLIRMAIKIIEKHGGIADDVRRVVTPASREEEYLKALKE
SEQ	ID NO: 36	ARECKDVKIDRVYIIGSCTGGKTEDFLAAAKVFLA. SGKVKVKVPTFLVPATQKVWMDVYSL
SEQ	ID NO: 38	ARECKDVKIDRVYIIGSCTGGKTEDFLAAAKVFLA. SGKVKVKVPTFLVPATQKVWLDIYSL
SEQ	ID NO: 40	ARECKDVKIDRVYIIGSCTGGKTEDFLAAAKVFLA. SGKVKVKVPTFLVPATQKVWMDVYSL
SEQ	ID NO: 42	ARECKDVKIDRVYIIGSCTGGKTEDFLAAAKVFLA. SGKVKVKVPTFLVPATQKVWMDVYSL
SEQ	ID NO: 44 FIAAAAKVFLA. SGKVKVKVPTFLVPATQKVWMDVYSL

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APPROVED BY	O.G. F:G. title: CLASS Inventor: DRAFTSMAN Appl. No.: 09/1120 E. I. DuPont de Nemours
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SOCKET NO. 00 1120
Plant Branched Chain Amino Acid Biosynthetic Enzymes
Saved: Carl Falco
09/1120
E. I. DuPont de Nemours

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SEQ ID NO: 45 GI:.....IEKELKYGC-VVTNPSCSACMGS...LYGVVLGESEVCVSTSNRNFRGRQG
SEQ ID NO: 36 PVPGGGGKTCQIFEEAGCDTPASPNCGACLGGPRDTYARMNEPTV
SEQ ID NO: 38 PVPGGGGKTCQIFEEAGCDTPASPNCGACLGGPRDTYARMNEPTV
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SEQ ID NO: 40 PVPGGGGKTCQIFEEVGCDTPASPSCGACLGGPKDTYARMNEPTV
SEQ ID NO: 42 PVPGGGGKTCQIFEEAGCDTPASPNCGACLGGPRDTYARMNEPTV
SEQ ID NO: 44 PVPGGGGKTCQIFEEAGCDTPASPNCGACLGGPRDTYARMNEPTV
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SEQ ID NO: 45 SLEAEIYLSPITAACAVKGELVDPRL..
SEQ ID NO: 36 HKEGQIYLSPYTAASALTYVTDPRDFLM
SEQ ID NO: 38 HKEGQIYLSPYTAASALTYVTDPRDFLM
SEQ ID NO: 40 ..
SEQ ID NO: 42 HKEGQIYLSPYTAASALTYVTDPREFL.
SEQ ID NO: 44 HKEGQIYLSPFTAASALTYVTDPRDFLS
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FIG. 6C

APPROVED	U.S.C.I.	1111	Title:
BY	CLASS	1111	Seaver, Carl Falco
DRAFTSMAN	1111	1111	Appl. No.:
		09/11	E.I.-DuPont de Nemours

Plant Branched Chain Amino Acid Biosynthetic Enzymes
Seaver, Carl Falco
Appl. No.: 09/11
E.I.-DuPont de Nemours

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FIGURE 7A 2001

SEQ ID NO: 54 MEKFTIYKGTSVP..... TAALLAPIRAPTSAFIRRSQLTCRLL..... HSLKCRR
 SEQ ID NO: 47 M. . AAALSGTAVS.....
 SEQ ID NO: 49 M. . AAAAAAPALSLAE. AAPVTAVLAPCPTPSRTFRRSRWVAICR. PALKCHH
 SEQ ID NO: 51 MRKXTTEVREEAALSIQQWPCTRESSAAATVLPRNLAFTKLSSLSSHTLLPREFLSFTPCKSSN
 SEQ ID NO: 53 ARAAVS..... TAALLAPIRAPTSAFIRRSQLTCRLL..... HSLKCRR
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SEQ ID NO: 54 GSIVPAAAAAAAGSSSSPSSAVERHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
 SEQ ID NO: 47 A. GSIVPAAAAAAAGSSSSPSSAVERHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
 SEQ ID NO: 49 SRPLTAVVAAAAAAAGDSTSAGVERHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
 SEQ ID NO: 51 PRNRVAVSLQTPTAQSAAASAPSASFHGLCYVVVDNIDTDQIIPAEYLTLVPSKPDEYRK
 SEQ ID NO: 53 A. GSIVPAAAAAAAGSSSSPSSAVERHGECFVVGDNIDTDQIIPAEHLTLVPSKPDEYRK
 61

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SEQ ID NO: 54 NLFYEWRYLKDYDENPDFILNAPKYKKASLLISGDNFGSSREHAAWALSDYGFRAIIA
 SEQ ID NO: 47 LGSFAFAGLPSAAAYPTPVAPEEESSRYAIIVGGANFGCGSSREHAPVALGAAGARAIVA
 SEQ ID NO: 49 LGSFAFAVGLPTAAAYPTPVAPEEEETRYAVIIGGANFGCGSSREHAPVALGAAGARAIVA
 SEQ ID NO: 51 LGSYALLIGLP. ATYATRFIEPGEIKTKYAIIVGGANFGCGSSREHAPVALGASGAAAVVA
 SEQ ID NO: 53 LGSFAFAGLPSAAAYPTPVAPEEESSRYAIIVGGANFGCGSSREHAPVALGAAGARAIVA
 121

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FIG. 7A

APPROVED BY DRAFTSMAN	O.G. FIG. Title: Plant Branched Chain Amino Acid Biosynthetic Enzymes Inventor: Saver, Carl Falco CLASS Appl No. 65 09/1985 E.I. DuPont de Nemours
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FIG. 7B 105422000

SEQ ID NO: 54 GSYSDIFYNNALKNG. LLPIKOPREVLNQLTKLSSQEITIDLPHQLIITSLGDFHFEID
 SEQ ID NO: 47 EGYARIFFRNSVATGEVYPLELTDVGAWKECK.. TGDVVTVDLANSVFINHTSGKEYKLK
 SEQ ID NO: 49 EGYARIFFRNSVATGEVYPLELTDVGAWKECK.. TGDVVTVELDNCVMINHTSGKEYKLK
 SEQ ID NO: 51 ESYARIFFRNSVATGEVYPLE. SEGRILCEECT.. TGDVVTVIELGESRLINHTGKEYRLK
 SEQ ID NO: 53 EGYARIFFRNSVGTGEVYPLELTDVGAWKECK.. TGDVVTVDLANSVFINHTSGKEYKLK
 181 240

SEQ ID NO: 54 PIWKDKLINGLDDIGITLOYEEAISAYEQKN..Q
 SEQ ID NO: 47 PIGDA... GPVIEAGGIAYARKTGMIAASKAA.
 SEQ ID NO: 49 PIGDA... GPVIEAGGIAYARKTGMIAASKAA..
 SEQ ID NO: 51 PIGDA... GPVIEAGGIAYARKTGMIPSR. ...
 SEQ ID NO: 53 PIGDA... GPVIEAGGIAYARKTGMIAASKAA.
 241 274

FIG. 7B